RTIP ID# *(required)* ORA020112

Project Description ***(clearly describe project)*** I-5 SOUTHBOUND AT OSO PARKWAY EXIT LANE AND INTERCHANGE IMPROVEMENTS. OCTA, in cooperation with Caltrans and the FHWA, is proposing the construction of safety-related improvements at the I-5 interchange with Oso Parkway adjacent to Cities of Laguna Hills and Mission Viejo. See attached project Title Sheet.

The proposed roadway improvements include widening the I-5 southbound off-ramp at Oso Parkway from one 3.6-meter lane to two 3.6-meter lanes at the gore to accommodate p.m. traffic demand, and it also proposes to construct a 400-meter auxiliary lane in advance of the off-ramp as advised in Highway Design Manual Section 504.3 (6). This alternative also widens the off-ramp from three 3.6-meter lanes to four 3.6-meter lanes at the Oso Parkway intersection. The off-ramp lane and shoulder widening will improve the right-turn movements of trucks to the westbound Oso Parkway. This widening requires a Type 1 retaining wall along the edge of the shoulder. In this alternative, the off-ramp alignment is configured to consider future widening of I-5. The tangent section from the nose to the beginning of the curve is extended to accommodate future widening of I-5 for a second high-occupancy vehicle (HOV) lane or a mixed-flow lane as indicated in the I-5 Route Concept Report. In addition, Oso Parkway Overhead (Bridge No. 55C-56) are proposed to be widened. The alternative will provide two 3.6-meter left-turn lanes in the westbound direction and three 3.6 meter through lanes, one 3.6-meter right-turn lane, and 2.4-meter shoulders westbound and eastbound between the I-5 and Cabot Road.

Type of Project *(use Table 1 on instruction sheet)*
Reconfigure Existing Interchange

County	**Narrative Location/Route & Postmiles:** 12-ORA-5 KP 24.86/26.67 PM 15.16/16.39
Orange County	Caltrans Projects – EA# 0E0700

Lead Agency: Orange County Transportation Authority

Contact Person	**Phone#**	**Fax#**	**Email**
Dipak Roy (CH2M HILL)	(714) 560-5863		droy@octa.net

Hot Spot Pollutant of Concern *(check one or both)* **PM2.5** ☒ **PM10**

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

☐ **Categorical Exclusion (NEPA)**	☐ **EA or Draft EIS**	☐ **FONSI or Final EIS**	☒ **PS&E or Construction**	☐ **Other**

Scheduled Date of Federal Action: 2002 State Transportation Improvement Program (STIP)

Current Programming Dates *as appropriate*

	PE/Environmental	**ENG**	**ROW**	**CON**
Start				2/2008
End	7/2005	5/2007	5/2007	2/2010

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*
The following lists the pertinent statements of the project's Need and Purpose directly excerpted from the 2001 PSR:

- "*This project is needed to address existing and forecast operational deficiencies of the I-5 southbound off-ramp to Oso Parkway and the northbound on-ramp from eastbound Oso Parkway and the northbound on-ramp from westbound Oso Parkway.*"
- *"Based on the Caltrans Highway Design Manual (HDM), Section 504.3.5, a single lane ramp can only accommodate 1,500 vehicles per hour. The current traffic volume of the southbound off-ramp operates at a volume close to 2,000 vehicles per hour during the p.m. peak period. As a result, congestion occurs on the Oso Parkway off-ramp in the p.m. peak period, causing traffic backup from the off-ramp onto the I-5 mainline."*
- *"The northbound loop on-ramp from eastbound Oso Parkway has sight distance restrictions along the curve due to the placement of the existing retaining wall at the edge of shoulder and high slopes adjacent to the ramp."*
- *"The northbound direct on-ramp from westbound Oso Parkway has sight distance restrictions on the first curve due to high slopes adjacent to the right of the ramp."*
- *"Currently, both ramp meters at the northbound loop on-ramp from eastbound Oso Parkway and the northbound direct on-ramp from westbound Oso Parkway have been deactivated because of limited existing sight distance."*

Based on the statements listed above, the need for the project is demonstrated through deficiencies in the operations of the Oso Parkway SB ramp diverge area on the I-5 mainline (i.e., a "chokepoint"), and sight distance deficiencies at the NB on-ramps (for needed safety improvements).

The purpose of the project would encompass a complement of improvements to the interchange that would improve existing and future operations at the SB off-ramp diverge area, and sight distance at the NB on-ramps. As a result of the proposed improvements, levels of service would also improve at the interchange.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*
The immediate area is suburban with predominantly residential and residential-serving commercial land uses.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility
Opening Year: 2010

ORA I-5 at Oso Parkway - 330,000 AADT, 11,550 Trucks (3.5%)

No Build:
Intersection of SB Off-Ramp with Oso Pkwy – LOS B
Intersection of NB Off-Ramp with Oso Pkwy – LOS D
Intersection of Cabot Rd. with Oso Pkwy – LOS E
Intersection of Fairfield Inn with Oso Pkwy = LOS B

Build:
Intersection of SB Off-Ramp with Oso Pkwy – LOS B
Intersection of NB Off-Ramp with Oso Pkwy – LOS D
Intersection of Cabot Rd. with Oso Pkwy – LOS D
Intersection of Fairfield Inn with Oso Pkwy = LOS B

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility
RTP Horizon Year 2025

ORA I-5 at Oso Parkway – 375,000 AADT, 13,125 Trucks (3.5%)

No Build:
Intersection of SB Off-Ramp with Oso Pkwy – LOS C
Intersection of NB Off-Ramp with Oso Pkwy – LOS F
Intersection of Cabot Rd. with Oso Pkwy – LOS F
Intersection of Fairfield Inn with Oso Pkwy = LOS E

Build:
Intersection of SB Off-Ramp with Oso Pkwy – LOS C
Intersection of NB Off-Ramp with Oso Pkwy – LOS C
Intersection of Cabot Rd. with Oso Pkwy – LOS D
Intersection of Fairfield Inn with Oso Pkwy = LOS C

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
Opening Year: 2010

WB Oso Parkway (east of Route 5) – 60,600 AADT[1], 600 Trucks (1%)
EB Oso Parkway (east of Route 5 – 60,600 AADT[1], 600 Trucks (1%)

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
RTP Horizon Year: 2030
WB Oso Parkway (east of Route 5) – 64,700 AADT[1], 647 Trucks (1%)
EB Oso Parkway (east of Route 5 – 64,700 AADT[1], 647 Trucks (1%)

[1]Based on 2005 City of Mission Viejo count data with the growth rate of 12% between the year 2000 to 2025.

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*
Parallel routes that can be used in the event of traffic congestion on I-5 include Cabot Road, Moulton Parkway and Marguerite Parkway.

Comments/Explanation/Details *(attach additional sheets as necessary)*
The project does not propose any improvements to the mainline freeway.